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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,540

06/04/2007

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7590 03/04/2010
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EXAMINER

JENNISON, BRIAN W

ART UNIT

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/587,540	Applicant(s) AOYAMA ET AL.	
	Examiner BRIAN JENNISON	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments with respect to claims 1, 4-15 have been considered but are moot in view of the new ground(s) of rejection. See Remarks below.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 4, 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al (US 2003/0189033) in view of Aoyama et al (US 2003/0127432).

Aoyama '033 teaches:

Regarding Claim 1: Fig 1 shows a welding system with a movable electrode 34. The part feeding device is integrated by board 7 which acts as a coupling device. The term integrated does not hold patentable weight and since this term is used the parts may be attached by any means.

An arm 53 is used to fix the welding device to a stationary robot.

Fig 1 shows a drive unit 54 which acts as drive means. Shaft 26 is a fixed shaft which is integrated through board 7. The system is also capable of rotating support member 27 which is clearly stated. **See Paragraph 0009.** Rack and pinion 40 and 41 rotate the supporting member 27 with the axis of the shaft being coaxial to the movable electrode 34. **See Paragraph [0033].**

Aoyama '033 fails to teach:

Regarding Claim 1: Resistance welding with a fixed electrode.

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Aoyama '432 teaches:

Regarding Claim 1: Fig 2 shows movable electrode 10 attached to fixed electrode 11 forming a pair of electrodes.

In view of the teachings of Aoyama it would have been obvious to one of ordinary skill in the art at the time of the invention to include the movable and fixed electrodes for forming a pair of electrode to perform resistance welding on the fed part.

Aoyama '033 also teaches:

Regarding Claim 4: the board 7 acts as a coupling member and is attached to the arm 53 which is a fixing member.

Regarding Claims 6 and 7: The part projected may easily be a bolt or a nut as shown in the figures and described in paragraphs 0005 and 0006.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al '033 as modified by Aoyama et al '432 and in further view of Aoyama (US 4,943,098).

The teachings of Aoyama et al '033 as modified by Aoyama et al '432 have been discussed above.

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Aoyama et al '033 as modified by Aoyama et al '432 also teaches: **(movable electrode 10 and feed apparatus 14 are integrated through coupling bracket 20. See Paragraph [0058], Lines 7-8)**

Aoyama et al '033 as modified by Aoyama et al '432 fails to teach:

Regarding Claim 5: The welding system according to claim 1, wherein a plurality of part feeding devices each of which feeds a different type of part are attached to the coupling member or an auxiliary member integrated with the coupling member.

Aoyama '098 teaches:

Regarding Claim 5: Figs 24 and 25 show two part feeding devices which would be attached to a coupling bracket each feed rod 9 supplies part P or P'. **(See Column 8, Lines 59-65.)**

In view of the teachings of Aoyama '098 it would have been obvious to one of ordinary skill in the art at the time of the invention to include with the teachings of Aoyama et al, the plurality of part feeding devices since Aoyama '098 teaches the part supply rods for feeding a nut and a bolt to be welded.

5. Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al '033 as modified by Aoyama et al '432 and in further view of Quinci et al (US 5,396,842)

The teachings of Aoyama et al '033 as modified by Aoyama et al '432 have been discussed above.

Aoyama et al fails to teach:

Regarding Claims 8 and 12:

and an auxiliary clamp block for setting a moving distance of the support rod in advance is disposed over or under the clamp block in such a manner that the auxiliary clamp block penetrates the support rod.

Regarding Claims 11 and 15: The welding system (or positioning system) according to claim 8, wherein the part feeding device is a device that feeds a part held by the feeding rod to the fixed electrode or the movable electrode of the welding device, in order to weld the part fed between the fixed electrode and the movable electrode by the feeding rod to the target part.

Regarding Claims 9 and 13: wherein the clamp block has a penetration hole through which the support rod with a circular cross section penetrates, a slit section continued from the penetration hold, and a fixing bolt penetrating the slit section.

Regarding Claims 10 and 14: wherein: the auxiliary clamp block has a penetration hole through which the support rod penetrates, a slit section continued from the

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penetration hole, and a fixing bolt penetrating the slit section; and an end face of the auxiliary clamp block can abut to an end face of the clamp block.

Aoyama et al ('432) teaches:

Regarding Claims 8 and 12: The welding system according to claim 1, wherein a support rod which is attached to the part feeding device and extends approximately in a vertical direction penetrates a clamp block fixed on the stationary member **(A rod 16, fixed by arm 8, capable of being extended in a vertical direction penetrates bracket 17. See Fig 1. and Paragraph [0042].)** and the clamp block clamps and loosens the outer periphery of the support rod to set the vertical position of the support rod, **(The bracket 17 is capable of loosening the rod 16.)**

Regarding Claims 11 and 15: The welding system (or positioning system) according to claim 8, wherein the part feeding device is a device that feeds a part held by the feeding rod to the fixed electrode or the movable electrode of the welding device, in order to weld the part fed between the fixed electrode and the movable electrode by the feeding rod to the target part. **(Projection bolt feed apparatus 14 feeds shank 2 by part feeding rod 18. The shank is fed to fixed electrode 11 and movable electrode 10. The part is fed to be welded by electrodes 10 and 11. See Paragraph [0064])**

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Quinci et al teaches: **(applicant merely states Quinci fails to teach these limitations but they are clearly described below. The applicant simply restates the invention.)**

Regarding Claims 8 and 12: Fig 8 shows a shaft 12 extending through a clamp 24 and a gripper block 26 or auxiliary clamp capable of setting a moving distance for the rod. It may be loosened and or tightened **(See Column 3, Lines 11-15)**

Regarding Claims 9 and 13: Fig 8 shows a clamp 24 with cylindrical passage 36 which rod 12 penetrates and space 42 or slit section continued from the penetration hole where screw 44 penetrates the slit section. **(See Column 3, Lines 28-46)**

Regarding Claims 10 and 14: The auxiliary clamp is merely a duplication of the clamp block which functions as an aid to the clamp block. The shaft 12 supports a plurality of clamp arms 24 which would abut the end face of each other. A second clamp arm would be considered an auxiliary clamp.

In view of Quinci et al's teachings it would have been obvious to one of ordinary skill in the art at the time of the invention to include with the teachings of Aoyama et al '033 as modified by Aoyama et al '432, the clamp and auxiliary clamp since, Quinci teaches a clamp and a gripper to open or close a passage to fix the clamp to the shaft or release it.

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It would also have been obvious to one having ordinary skill in the art at the time of the invention was made to include an auxiliary clamp and rotate to a vertical position, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

REMARKS

In regards to applicant's arguments on pages 7-9 of the reply: Aoyama '432 teaches a movable electrode 10 attached to fixed electrode 11 forming a pair of electrodes for resistance welding. A fixing member is clearly shown, since the claim merely requires a "fixing member" this structure may be anything which attaches a part of the device to something stationary. In this case the robot has a stationary base. The system is also capable of rotating support member 27 which is clearly stated. **See Paragraph 0009.** Rack and pinion 40 and 41 rotate the supporting member 27 with the axis of the shaft being coaxial to the movable electrode 34.

Applicant's arguments, regarding claims 8-15 on pages 9-10, fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

No comparison of the structure taught in Aoyama or Quinci is made. Applicant merely states the cited structure is not there which it has been clearly pointed out in the rejection above. Quinci is used to show the clamping device. Any person of ordinary

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skill in the art would recognize the horizontal or vertical placement of the rod or clamps based on the desired use. Horizontal or vertical placement is merely a rearrangement of parts.

The reasons for combining are also given: Quinci teaches a clamp and a gripper to open or close a passage to fix the clamp to the shaft or release it.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN JENNISON whose telephone number is (571)270-5930. The examiner can normally be reached on M-Th 7:00AM-5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN JENNISON/
Examiner, Art Unit 3742

2/25/2010

/TU B HOANG/

Supervisory Patent Examiner, Art Unit 3742